ORIGINAL



BEFORE THE

# Federal Communications Commission

WASHINGTON, DC 20554

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| In the Matter of | ) | |
| | ) | |
| Prescribing the Authorized Unitary Rate of Return for Interstate Services of Local Exchange Carriers | ) | CC Docket No. 98-166 |

# RESPONSIVE CASE AND REPLY COMMENTS OF U S WEST, INC.

Kathryn A. Zachem
J. Wade Lindsay
Robert G. Morse
WILKINSON, BARKER, KNAUER & QUINN, LLP
2300 N Street, N.W., Suite 700
Washington, D.C. 20037
(202) 783-4141

Its Attorneys

Of Counsel,

James T. Hannon
U S WEST, Inc.
1020 19th Street, N.W., Suite 700
Washington, D.C. 20036
(303) 672-2860

Daniel L. Poole
U S WEST, Inc.

Date: March 16, 1999

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## SUMMARY

Eleven parties filed comments and/or direct cases in response to the *Rate-of-Return Notice*. The majority of the comments were filed by incumbent LECs and argued that the Commission should not represcribe the unitary rate of return but rather should focus its resources upon resolving its universal service and access reform policies. U S WEST concurs with these filing parties. If, however, the Commission elects to prescribe a unitary rate-of-return, U S WEST urges the Commission to adopt a forward-looking weighted cost of capital (or incremental cost of capital), rather than the current regulatory book value cost of capital. U S WEST also concurs with the commenters who argued that the Commission should not revise the low-end formula adjustment mechanism ("LFAM").

Interestingly, the General Services Administration ("GSA") filed the only detailed Direct Case in this proceeding. Specifically, the GSA recommended that the Commission establish a rate-of-return equal to 9.5 percent. The overall rate-of-return using GSA's data is actually 9.27 percent, but GSA recommended 9.5 percent because 9.27 percent is significantly less than recent cost of capital findings of state utility commissions.

U S WEST has joined with Bell Atlantic and GTE in sponsoring the Reply Affidavit of Professor James Vander Weide, which rebuts GSA's Direct Case. As Dr. Vander Weide demonstrates, GSA's case is badly flawed because the methodology used for determining a LEC's cost of capital is incorrect, uneconomic and conflicts with the Commission's stated goal of promoting competition by ensuring that telecommunications rates provide correct economic signals to the market participants. As Dr. Vander Weide concludes, the correct weighted average cost of capital for LECs is between 12.7 and 13.2 percent, not 9.5 percent.

In addition, U S WEST opposes the Comments of AT&T and MCI WorldCom which urge the Commission to eliminate or reduce the LFAM. In U S WEST's view, the Commission should do nothing to undermine the structure of price cap regulation and reintroduce inefficiencies associated with rate-of-return regulation. To that end, the Commission should not eliminate or adjust downward the LFAM. If, however, the Commission determines to adjust the LFAM, U S WEST submits that the LFAM should be tied to a forward-looking weighted average cost of capital such as that calculated by Dr. Vander Weide, and not to a regulatory book value cost of capital.

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## RESPONSIVE CASE AND REPLY COMMENTS OF U S WEST, INC.

U S WEST, Inc. ("U S WEST") hereby submits its responsive case and reply comments in the above-captioned proceeding.

## I. INTRODUCTION/BACKGROUND

On October 5, 1998, the Commission issued its *Rate-of-Return Notice* initiating a proceeding to prescribe the authorized rate-of-return for interstate access services provided by incumbent local exchange carriers ("LECs") subject to rate-of-return regulation.[1] Eleven parties filed comments and/or direct cases in response to the *Rate-of-Return Notice*. The LECs generally argue that the Commission should not represcribe the unitary rate of return but rather should focus its resources upon resolving its universal service and access reform policies.[2] If, however, the Commission elects to prescribe a unitary rate-of-return, the

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1 *See Prescribing the Authorized Unitary Rate of Return for Interstate Services of Local Exchange Carriers*, CC Docket No. 98-166, *Notice Initiating a Prescription Proceeding and Notice of Proposed Rulemaking*, FCC 98-222 ¶ 7 (rel. October 5. 1998), *modified, Order* (rel. November 16, 1998) ("*Rate-of-Return Notice*").

2 *See* Bell Atlantic Comments at 2-4; United States Telephone Association, National Rural Telecom Association, Organization for the Promotion and Advancement of Small Telecommunications Companies, Independent Telephone and Telecommunications Alliance, and National Exchange Carrier Association (the "Associations") Comments at 10-11; Virgin Islands Telephone Company Comments at 3-7; SBC Communications, Inc. Joint Direct Case and Comments at 2-3.

Commission should adopt a forward-looking weighted cost of capital (or incremental cost of capital), rather than the current regulatory book value cost of capital.[3] The LECs also generally argue that the Commission should not revise the low-end formula adjustment mechanism ("LFAM").[4]

AT&T and MCI WorldCom focus the majority of their comments on the LFAM. AT&T argues that the Commission should eliminate the LFAM.[5] MCI WorldCom states that it has no objection to the Commission's proposed modifications to the computation of the cost of debt or the cost of preferred stock, but agrees that the LFAM should be modified.[6] In MCI WorldCom's view, the LFAM mark should not be automatically set at one percentage point below the unitary rate of return, but instead should be either completely eliminated or, at the very least, set at a level far below the unitary rate of return.[7]

Interestingly, the General Services Administration ("GSA") filed the only detailed Direct Case in this proceeding. Specifically, the GSA recommends that the Commission establish a rate-of-return equal to 9.5 percent.[8] The overall rate-of-return using

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3 *See, e.g.,* Associations Comments at 12-13; Bell Atlantic Comments at 10-11; GTE Comments at 4-5; SBC Comments at 4-5; U S WEST Comments at 4-8.

4 *See* Bell Atlantic Comments at 4-6; Associations Comments at 15-16; GTE Comments at 7-8; SBC Comments at 7; U S WEST Comments at 16-18.

5 AT&T Comments at 2-7.

6 MCI WorldCom Comments at 4-7.

7 *Id.* at 5-8.

8 GSA Direct Case at 23.

GSA's data is actually 9.27 percent, but GSA recommends 9.5 percent because 9.27 percent is significantly less than recent cost of capital findings of state utility commissions.[9]

U S WEST has joined with Bell Atlantic and GTE in sponsoring the Reply Affidavit of Professor James Vander Weide, appended hereto as Appendix A. Dr. Vander Weide takes issue with GSA's direct case. As demonstrated below, GSA's case is badly flawed. Simply put, the methodology used for determining a LEC's cost of capital is incorrect, uneconomic and conflicts with the Commission's stated goal of promoting competition by ensuring that telecommunications rates provide correct economic signals to the market participants. Dr. Vander Weide concludes that correct cost of capital methodologies result in a weighted average cost of capital of between 12.7 and 13.2 percent, not 9.5 percent.

In addition, U S WEST opposes the Comments of AT&T and MCI WorldCom which urge the Commission to eliminate or reduce the LFAM. In U S WEST's view, the Commission should do nothing to undermine the structure of price cap regulation and reintroduce inefficiencies associated with rate-of-return regulation. To that end, the Commission should not eliminate or adjust downward the LFAM. If, however, the Commission determines to adjust the LFAM, U S WEST submits that the LFAM should be tied to a forward-looking weighted average cost of capital such as that calculated by Dr. Vander Weide, and not to a regulatory book value cost of capital.

## II. U S WEST'S RESPONSIVE CASE

The majority of the comments in this proceeding urge the Commission not to prescribe a new unitary rate-of return, but rather to promote policies that support and direct

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9 *Id.*

the emergence of competition in telecommunications markets.[10] In addition, the comments also recognize that if the Commission is to prescribe a new rate-of-return, it should do so on a forward-looking basis utilizing a cost of capital calculated from *market* interest rates, *market* cost of equity, and the *market values* of the debt and equity components of the LECs' capital structure.[11]

U S WEST supports this position. As demonstrated in its comments, the fundamental regulatory rationale underlying the Commission's use of embedded costs and regulatory book values for determining cost of capital is rapidly unraveling due to the significant increase in LECs' investment risk and the introduction of competition in the local exchange market from non-regulated entities strongly undermines any justification for the continued prescription of rate-of-return.[12]

Consequently, U S WEST believes that the Commission should abandon its traditional rate-of-return based upon embedded costs. If, however, the Commission elects to represcribe a rate-of-return, it should embrace a forward-looking weighted average cost of

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10 *See, e.g.*, Bell Atlantic Comments at 2-4; Associations Comments at 10-11; Virgin Islands Telephone Company Comments at 3-7; SBC Communications, Inc. Joint Direct Case and Comments at 2-4.

11 *See* U S WEST Comments, Attachment A, Vander Weide Affidavit at ¶ 4, Attachment B, Cummings Affidavit at 7-9.

12 U S WEST Comments, Appendix A, Vander Weide Affidavit at ¶ 23. Investment risk has been increasing due to four factors: (1) expanded operating leverage resulting from increased investment in fixed assets and software to provide interconnection and unbundled network investments to competitive local exchange carriers; (2) developing competition in the local exchange telecommunications market; (3) rapidly changing technologies which have increased the capability and lowered the cost of equipment, thereby threatening LECs' ability to recover their investment in new plant, and reducing cost of entry for competitors; and (4) asymmetries in the regulation of telecommunications carriers result in LECs bearing significant regulatory disadvantages in the transition to a fully competitive local exchange market. *Id.* at ¶ 24-35.

capital. Forward-looking weighted average cost of capital measures the cost of the new capital (in the form of debt and equity) which must be raised to finance new investment — not the historical cost of equity and debt. Use of a forward-looking cost of capital would be consistent both with financial theory and the pro-competition mandate of the Telecommunications Act of 1996 and many of the Commission's implementing orders.[13]

### A. GSA's Direct Case Is Fundamentally Flawed

GSA, on the other hand, was the only party to provide a detailed direct case urging the Commission to represcribe a rate-of-return significantly *lower* than the current rate-of-return. Specifically, the GSA recommends that the Commission establish a rate-of-return equal to 9.5 percent.[14] This rate-of-return is derived using a 7.39 percent estimate of cost of debt, a 10.75 percent estimate of cost of equity, and a capital structure of 44 percent debt and 56 percent equity.[15]

U S WEST has joined with Bell Atlantic and GTE in sponsoring the Reply Affidavit of Professor James Vander Weide, appended hereto as Appendix A. Dr. Vander Weide demonstrates that GSA has significantly underestimated the LECs' weighted average cost of capital.[16] In sum, GSA's methodology for determining cost of capital is incorrect,

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13 *See* U S WEST Comments at 7-8.

14 GSA Direct Case at 23.

15 *Id.* at 22. The 7.39 percent cost of debt estimate was derived from ARMIS data on the Regional Bell Operating Companies' ("RBOCs") average embedded cost of debt. *Id.* at 5. The 10.75 cost of equity was estimated by applying the Annual DCF Model to a proxy group consisting of the five RBOCs. *Id.* at 13, 21. The capital structure was based upon the RBOCs' average book value capital structure at year-end 1997 as reported in the ARMIS reports. *Id.* at 5.

16 Vander Weide Reply Affidavit at ¶ 5.

uneconomic and conflicts with the Commission's stated goal of promoting competition by ensuring that telecommunications rates provide correct economic signals to the market participants.[17]

### 1. Cost of Debt and Capital Structure

One of the most significant flaws in GSA's case is GSA's reliance upon cost of debt and capital structure components based upon embedded cost of debt and book value capital structure. This approach is not only inconsistent with financial and economic theory, but also conflicts with the manner in which companies attract capital in the capital markets and in which they calculate the cost of capital for entry, investment, and innovation decisions. Stated simply, GSA's approach denies the LECs the opportunity to earn a fair rate of return on their invested capital, discourages incumbents' investments in new technologies and services, and provides incorrect signals for entry, investment, and innovation decisions.

As U S WEST demonstrated in its comments, the use of market capital costs and market value capital structures — rather than embedded costs and book values — to estimate the weighted average cost of capital is critical.[18] Forward-looking weighted average cost of capital measures the cost of the new capital (in the form of debt and equity) which must be raised to finance new investment, not the historical cost of equity and debt. Stated generally: (1) market interest rates are the best measure of the amount firms would have to pay to raise debt capital on a going-forward basis; (2) market values are the best measures of the amounts of debt and equity investors have invested in the company and will invest on a

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17 *Id.* at ¶¶ 5-10 (summary).

18 U S WEST Comments at 4-8.

going-forward basis; and (3) market values are good approximations of the amounts that could be realized from the sale of the company's debt and equity securities.[19]

Business decision makers, economists and investors all must make decisions on a forward-looking basis and thus rely on forward-looking cost of capital data.[20] Embedded costs and book values, on the other hand, are economically meaningless for such purposes. Indeed, such historical data provide highly distorted measures of the amount of equity investors have invested in a firm on a forward-looking basis and are inappropriate for use except in "a true monopoly regulated environment" in which "all industry participants are similarly regulated and there are no unregulated substitutes for the monopoly services."[21]

**2. Cost of Equity**

Another significant flaw in GSA's direct case is its use of the Annual DCF Model to estimate cost of equity. The GSA's Annual DCF Model is based on the assumptions that the risk proxy companies pay dividends only at the end of each year, and that the risk proxy companies incur no flotation costs when they issue equity securities. Neither of these two assumptions is correct. Indeed, these two flawed assumptions improperly bias downward GSA's model results.[22]

GSA's model will produce correct estimates of a firm's cost of equity capital *only* if the firm pays dividends just once a year. Most U.S. industrial and utility firms pay dividends quarterly and, due to the time value of money, investors can expect to earn a higher

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19 Vander Weide Reply Affidavit at ¶ 15.

20 *Id.* at ¶¶ 13-16.

21 U S WEST Comments, Attachment B, Cummings Affidavit at 8.

22 Vander Weide Reply Affidavit at ¶¶ 55-58.

annual effective return on an investment in a firm that pays quarterly dividends than in one which pays the same amount of dollar dividends once at the end of each year.[23] Consequently, GSA should have used a DCF Model that recognizes quarterly dividend payments.[24] Indeed, investors recognize the correct timing and magnitude of cash flows when they use the DCF Model to value bond investments.[25] To that end, U S WEST submits that GSA should have used the Quarterly DCF Model, which provides the most accurate basis for valuing the actual dividend stream expected by the investor.

As noted, GSA also did not compensate for flotation costs in applying its DCF model. The fact is, however, that stock flotation costs are real and must be accounted for in financing and capital budgeting. Simply put, cost of equity capital (or return on equity capital that a company receives from its shareholders' investment) is always greater than the market required rate of return because of expenses associated with issuing the stock.[26] Consequently, there should be some adjustment to account for such costs.[27] Otherwise, the results of the DCF Model will be improperly low.

**3. Risk**

As Dr. Vander Weide discusses, the GSA's Direct Case is clearly premised upon the erroneous view that access services are offered in a low-risk, near monopoly environment. The GSA states:

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23 *Id.* at ¶¶ 55-56.

24 *Id.* at ¶ 56.

25 *Id.* at ¶¶ 55-56.

26 *Id.* at ¶¶ 57-58.

27 U S WEST Comments, Attachment B, Cummings Affidavit at 23-25.

> Unfortunately, the level of competition for interstate access services is still very low. The Common Carrier Bureau's Industry Analysis Division recently reported that notwithstanding the passage of the Telecommunications Act in February of 1996, Incumbent Local Exchange Carriers ("ILECs") still account for 96.8 percent of all local services revenues.[28]

The GSA also states that "[o]verall, the RBOCs' business risk is greater than that associated with interstate access services."[29] Finally, GSA states that the "risks confronting industrial companies in competitive markets are altogether different from those of ILECs with established service territories and large numbers of captive customers."[30]

The GSA has simply gotten its facts wrong. In fact, access services are among the riskiest of the RBOCs' telecommunications services.[31] There is already considerable competition in the market for access services and, in any event, the risk of interstate access

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28 GSA Direct Case at 2.

29 *Id.* at 6.

30 *Id.* at 14.

31 This is clearly demonstrated by the petitions U S WEST filed requesting that the Commission exercise its Section 10 authority to forbear from regulating U S WEST as a dominant carrier in the provision of high capacity special access and dedicated transport for switched access in the Seattle and Phoenix MSAs. In these petitions and a subsequent *ex parte* filing, U S WEST presented evidence that its share of the "transport" market had declined to 62 percent and 63 percent by mid-1998 in Phoenix and Seattle, respectively. U S WEST's share of the "retail" market in these cities had eroded even further to less than 30 percent in both cities by mid-1998 (28 percent in Phoenix and 20 percent in Seattle). *See* Petition of U S WEST Communications, Inc. for Forbearance from Regulation as a Dominant Carrier for the Phoenix, Arizona MSA, CC Docket No. 98-157, filed August 24, 1998; Petition of U S WEST Communications, Inc. for Forbearance from Regulation as a Dominant Carrier for the Seattle, Washington MSA, CC Docket No. 99-1, filed December 30, 1998; *Ex Parte* letter from B.B. Nugent, U S WEST, to Ms. Magalie Roman Salas, Secretary, Federal Communications Commission, dated January 28, 1999. Similar forbearance petitions have been filed by Bell Atlantic, Southwestern Bell and Ameritech. As a whole, these petitions demonstrate that there is significant business risk associated with the provision of access services.

services depends on the *future expected* level of competition, not the *current* level of competition. Investors are aware that competitive providers are spending billions of dollars to bypass the incumbent LECs' local exchange services.[32] Indeed, MCI WorldCom has competitive local access networks in place in more than 100 cities nationwide, and financial analysts indicate that MCI WorldCom has an unbeatable competitive advantage in the market for business customers because of its national and international coverage.[33]

Further, AT&T, the world's largest telecommunications company, has acquired both TCG, a CLEC, and TCI, the nation's biggest cable TV company; and AT&T has either closed or is near to closing deals with the next three largest cable providers that will allow AT&T to provide competitive access to two-thirds of the cable households in the United States.[34] AT&T's national and international footprints also give AT&T a significant competitive advantage over the LECs in the access market.

Moreover, Internet service providers ("ISPs") are rapidly developing the technology to provide voice telecommunications service over Internet protocol networks.[35] The cost of voice telecommunications from ISPs is significantly less than the cost of voice services from LECs because the ISPs do not have to pay access charges for either originating or terminating calls. The potential competition from the ISPs threatens the LECs' entire investment in wireline access facilities.

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32 Vander Weide Reply Affidavit at ¶ 61.

33 *See id.* at ¶ 62, quoting "MCI WorldCom, Inc.," Grubman, J.B., Salomon Smith Barney, October 9, 1998.

34 *Id.* at ¶ 62.

35 *Id.* at ¶ 63.

In sum, Dr. Vander Weide demonstrates that GSA's risk assessment is naive at best. A careful analysis of the risk of providing interstate access indicates that interstate access is among the riskiest services offered by the LECs.

**4. Other Fallacies in GSA's Direct Case**

There are other significant flaws in GSA's Direct Case. GSA's use of the RBOCs as a proxy group contradicts its basic assumption that companies operate in a stable environment where: (1) the growth in future earnings and dividends can be reliably estimated; (2) the firm is not expected to fundamentally transform the identity and risk of its business; and (3) the firm has no unexercised strategic options to invest in valuable business opportunities. The fact is that the RBOCs operate in an unstable environment where future growth is difficult to estimate, the companies are fundamentally transforming the nature of their businesses, and they have unexercised strategic options to invest in valuable business opportunities.[36] As such the RBOCs serve as a poor proxy group.

The RBOCs are a poor proxy also because of their small sample size of only five companies and the companies' decision to reduce their dividend payment.[37] The GSA could have avoided the problems of applying the DCF Model to the RBOCs by choosing a group of companies of comparable risk such as the S&P Industrials.

GSA's estimate for the growth component of its DCF Model is also flawed. GSA averages the five-year Analysts' Consensus Estimate ("ACE") of future earnings per share ("EPS") growth with the RBOCs' five-year historical growth in EPS. The GSA fails to recognize, however, that the RBOCs five-year historical growth rates have been highly

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36 *Id.* at ¶ 28.

37 *Id.*

distorted by the numerous accounting write-offs and special charges the RBOCs have taken in the past five years.[38] They also fail to realize that historical growth is necessarily a poor indicator of future growth for companies whose businesses are being fundamentally transformed by competition, deregulation, and rapidly changing technology.[39]

Finally, GSA's use of an equally-weighted average for calculation of cost of equity has a significant and improper effect on the resulting estimate because of the considerable disparity in the GSA's DCF results across the RBOCs and the disparity in the size of the RBOCs.[40] Financial analysts generally use market value weighted average DCF results to reflect the fact that investors hold more of large companies in their portfolios than small companies.

### B. The Commission Should Develop a Forward-Looking Weighted Average Cost of Capital

In sum, the GSA's Direct Case is fatally flawed and the Commission should not rely on it in prescribing any new rate-of-return. Instead, U S WEST submits that, if the Commission is to prescribe a rate-of-return, it should do so on a forward-looking basis consistent with U S WEST's proposals in its comments. To that end, U S WEST joined with Bell Atlantic and GTE to present a separate cost of capital analysis using a market interest rate, a market value capital structure, and a market-based measure of the LECs' cost of equity. That analysis is set forth in the testimony of Dr. Vander Weide attached hereto as Appendix A.

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38 *Id.* at ¶¶ 8, 25-27.

39 *Id.* at ¶¶ 8, 35-39.

40 *Id.* at ¶¶ 9, 53-54.

In his analysis, Dr. Vander Weide used the S&P Industrials as a proxy group for measuring the LECs' weighted average cost of capital. Dr. Vander Weide used a proxy because of the difficulties of applying the DCF Model to the LECs.[41] The S&P Industrials is an appropriate proxy group because the Telecommunications Act of 1996 opened the local exchange telecommunications market to full competition. The S&P Industrials are a well-known sample of publicly-traded competitive companies whose risk, on average, approximates the risk of providing local exchange services, including access, in a competitive market.[42] Furthermore, the S&P Industrials as a group are subject to significantly less industry restructuring than the LECs; and thus the assumptions of the DCF Model apply reasonably well to the S&P Industrials.[43]

To calculate the market cost of debt investment for this proxy group, Dr. Vander Weide used the 6.68 percent yield to maturity on Moody's A-rated industrial bonds for December 1998, as reported by Moody's Investors Service.[44] Dr. Vander Weide asserts that this estimate is conservative because it does not include the flotation costs that must be paid to issue the debt securities required to finance local exchange facilities.[45]

Further, to the extent that the stock of LECs is not publicly traded, their market capital structures cannot be determined precisely. Accordingly, Dr. Vander Weide used the five-year average capital structure of the S&P Industrials as an estimate of the target capital

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41 *Id.* at ¶¶ 66-67.

42 *Id.* at ¶ 67.

43 *Id.*

44 *Id.* at ¶ 68.

45 *Id.*

structure for the rate of return LECs.[46] Based on this review, Dr. Vander Weide recommended a target capital structure with a lower range of 25 percent debt and 75 percent equity and an upper range of 20 percent debt and 80 percent equity to estimate the weighted average cost of capital.[47] The proposed capital structure contains significantly less equity than the most current actual market value capital structures of all the other company groups and therefore are reasonable conservative figures.[48]

To measure the market cost of an equity investment, Dr. Vander Weide applied the DCF Model to the proxy group.[49] This application of the DCF Model to the S&P industrials resulted in a market-weighted average DCF cost of equity of 14.77 percent for the S&P Industrials. Ultimately, Dr. Vander Weide estimated the overall weighted average cost of capital for LECs to be 12.7 percent, based on a 6.68 percent market cost of debt, a target market value capital structure containing 25 percent debt and 75 percent equity, and a cost of equity of 14.77 percent.[50] Using the 20 percent debt and 80 percent equity capital structure, the estimated cost of capital is 13.2 percent.[51]

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46 *Id.* at ¶ 69.

47 *Id.* at ¶ 71.

48 *Id.*

49 *Id.* at ¶ 72.

50 *Id.* at ¶ 73.

51 *Id.*

## III. THE COMMISSION SHOULD LEAVE UNCHANGED THE LFAM THRESHOLD

U S WEST opposes AT&T's and MCI WorldCom's arguments that the Commission should eliminate or reduce the LFAM.[52] Both AT&T and MCI argue that elimination or lowering of the LFAM threshold is essential to establish symmetrical economic incentives and disincentives to encourage greater efficiency.[53] They also argue that the elimination of the sharing mechanism further emphasizes that the LFAM is an anomalous regulatory mechanism which should be eliminated.[54] The comments of AT&T and MCI are simply wrong and display a significant misunderstanding of price cap regulation and the role served by the LFAM.

Price cap regulation was designed as an incentive-based system of regulation intended to produce rates within a "zone of reasonableness."[55] To that end, the price cap is subject to an annual adjustment to ensure that prices will drop in real, inflation-adjusted terms.[56] By placing such "downward" pressure upon the price cap, the Commission intended to create a regulatory environment that requires carriers to become more productive.[57] Price cap regulation is a two-edged sword: carriers that increase their productivity can earn revenues

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52 AT&T Comments at 2-6; MCI WorldCom Comments at 4-5.

53 AT&T Comments at 5; MCI WorldCom Comments at 5-8.

54 AT&T Comments at 4.

55 *Policy and Rules Concerning Rates for Dominant Carriers*, 5 FCC Rcd. 6786, 6787 ¶ 3, 6804 ¶¶ 147-49 (1990) ("*LEC Price Cap Order*"), *erratum*, 5 FCC Rcd. 7664 (CCB 1990), *modified*, 6 FCC Rcd. 2637 (1991), *aff'd sub nom., National Rural Telecom Ass'n v. FCC*, 988 F.2d 174 (D.C. Cir. 1993).

56 *LEC Price Cap Order,* 5 FCC Rcd. at 6787 ¶ 2.

57 *Id.* at 6789 ¶ 22.

above those of rate-of-return carriers, while those that fail to increase productivity will suffer accordingly.[58]

As Dr. Vander Weide notes, however, inefficiency is likely to be rare under this regime and thus low earnings are more likely to signal of an "'error in the productivity factor'" or "'unforseen circumstances in a particular area of the country.'"[59] As the Commission recognized, there must be an adjustment in such circumstances to avoid harm to customers as well as stockholders of the LEC.[60] The low-end adjustment protects against such harm while continuing to require that LECs gain in "efficiency and productivity if they are to achieve even the average return allowed to them under rate-of-return regulation."[61]

As SBC notes, price cap LECs are still more risky than rate-of-return LECs.[62] Consequently, the LFAM is still necessary to serve the important dual purpose of protecting price cap LECs from unduly low revenue while retaining the important efficiency and productivity incentives. Consequently, the public interest would best be served by leaving the LFAM unchanged. Lowering the LFAM would simply increase the risks and uncertainties price cap LECs face without any corresponding incentives toward greater efficiency and productivity.

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58 *Id.*

59 Vander Weide Reply Affidavit at ¶ 75, quoting *LEC Price Cap Order*, 5 FCC Rcd. 6804 ¶ 147.

60 *LEC Price Cap Order*, 5 FCC Rcd. at 6804 ¶ 147.

61 *Id.*

62 SBC Comments at 7-8.

If, however, the Commission elects to change the low-end adjustment, U S WEST urges the Commission to tie the adjustment to a forward-looking cost of capital. As discussed above, the capital structure the Commission uses to develop the authorized unitary rate-of-return is based upon regulatory book value of debt and equity and thus is not appropriately forward-looking. In U S WEST's view, it is inappropriate from a financial perspective, to apply such a capital structure to price cap-regulated LECs. A low-end adjustment formula based upon a forward-looking weighted average cost of capital will best serve the fundamental incentive structure of price cap regulation.

As the Commission found in its *LEC Price Cap Order*, rate-of-return regulation is not the best method for regulating highly complex and competitive industries.[63] Indeed, as the Commission has recognized, rate-of-return regulation tends to produce significant economic inefficiencies and it is "more desirable to permit LECs to migrate their rates toward a set of prices that enhances efficiency."[64] Insofar as it is based upon regulatory book values of debt and equity, using the prescribed rate-of-return to set the low-end formula adjustment reintroduces rate-of-return inefficiencies into price cap regulation.

**CONCLUSION**

For the reasons set forth above and in U S WEST's comments in this proceeding, if the Commission prescribes a new rate-of-return, U S WEST urges it do so on a forward-looking basis utilizing a cost of capital calculated from *market* interest rates, *market* cost of equity, and the *market values* of the debt and equity components of the LECs' capital structure. To that end, the Commission should not rely on the Direct Case presented by GSA,

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63 *See LEC Price Cap Order* at 6790 ¶ 29.

64 *Id.*

but instead should rely on Dr. Vander Weide's testimony and establish a rate-of-return of between 12.7 and 13.2 percent depending upon the capital structure. In addition, the Commission should maintain the low-end adjustment formula or tie it to a forward-looking cost of capital such as that developed by Dr. Vander Weide.

Respectfully submitted,

**U S WEST, Inc.**

By: 
Kathryn A. Zachem
J. Wade Lindsay
Robert G. Morse

WILKINSON, BARKER, KNAUER & QUINN, LLP
2300 N Street, N.W., Suite 700
Washington, D.C. 20037
(202) 783-4141

Its Attorneys

Of Counsel,

James T. Hannon
U S WEST, Inc.
1020 19th Street, N.W., Suite 700
Washington, D.C. 20036

Daniel L. Poole
U S WEST, Inc.

Date: March 16, 1999

STATE OF NORTH CAROLINA )
)
COUNTY OF Durham )

James H. Vander Weide, being first duly sworn, deposes and says that he has read the foregoing affidavit of James H. Vander Weide, and that the matters and things set forth therein are true and correct to the best of his knowledge, information, and belief.

James H. Vander Weide
James H. Vander Weide

Subscribed and sworn to before me this 11 day of March, 1999.

Carol N Lovans
Notary Public In and For the State of North Carolina

My commission expires on 12-2-2001.

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| Exchange Carriers | ) | |

**REPLY AFFIDAVIT OF JAMES H. VANDER WEIDE**

## I. Introduction

1. My name is James H. Vander Weide. I am Research Professor of Finance and Economics at the Fuqua School of Business, Duke University. I am also President of Financial Strategy Associates, a firm that provides financial and economic consulting services primarily to companies in the electric, gas, insurance, telecommunications, and water industries. My business address is 3606 Stoneybrook Drive, Durham, North Carolina.

2. I previously submitted an affidavit in this proceeding on behalf of Bell Atlantic, GTE, and US West on January 19, 1999. My previous affidavit emphasized the need for the Commission to: (1) use current market values rather than historical costs to estimate the cost of debt and capital structure components of the weighted average cost of capital for those local exchange carriers ("ILECs"[1]) still subject to rate of return regulation; (2) send correct economic signals to potential entrants who must choose between leasing access from incumbents and building their own facilities; (3) recognize the significantly increased risks facing ILECs in providing access services; and (4) recognize that a correct estimate of the cost of capital, using

[1] Like the FCC, I use the acronym "ILECs" in this proceeding to refer to those local exchange carriers still subject to rate of return regulation. In more general usage, the acronym "ILECs" refers to all incumbent local exchange carriers, not just to those still subject to rate of return regulation.

market values, a market interest rate, and a market cost of equity, would likely exceed the Commission's currently authorized 11.25 percent rate of return.

3. In the initial round in this proceeding, the General Services Administration ("GSA") filed the Direct Case of the General Services Administration, which recommends a 9.5 percent allowed rate of return for the ILECs. The GSA's recommended allowed rate of return is based on a 7.39 percent estimate of the ILECs' cost of debt, a 10.75 percent estimate of the ILECs' cost of equity, and a capital structure containing 44 percent debt and 56 percent equity. Although the weighted average cost of capital using these data is 9.27 percent, the GSA recommends an overall rate of return of 9.5 percent because they recognize that 9.27 percent is significantly less than recent cost of capital findings of state utility commissions.

4. I have now been asked by Bell Atlantic, GTE, and U S West to review the GSA's Direct Case and to respond to their recommended overall allowed rate of return for the ILECs. As part of my evaluation of the GSA's Direct Case, I will present my own independent estimate of the ILECs' cost of capital. In addition, I will respond to AT&T's recommendation that the Commission should eliminate the low-end adjustment mechanism of price cap regulation.

## II. Summary

5. From my review of the GSA's Direct Case, I conclude that the GSA has significantly underestimated the ILECs' weighted average cost of capital. The GSA's underestimate of the ILECs' weighted average cost of capital is caused by: (1) their use of historically-oriented book value estimates, rather than actual market values, of the ILECs' cost of debt and capital structure; (2) their failure to recognize that the RHCs do not satisfy the basic stability assumptions of traditional cost of equity estimation techniques; (3) their use of historical data to estimate the RHCs' future growth; and (4) their gross misunderstanding of the risks the

ILECs' face in providing interstate access service. A summary of my conclusions is contained in the following paragraphs, and a complete discussion of my conclusions is contained in the following sections of this affidavit. On the basis of my own studies, I find that the ILECs' weighted average cost of capital is in the range 12.75 percent to 13.15 percent.

6. Cost of Debt and Capital Structure. The GSA's historical cost, book value definitions of the cost of debt and capital structure components of the ILECs' weighted average cost of capital are inconsistent with the forward-looking economic definition of the weighted average cost of capital. Economic and financial theory require that the cost of debt be measured in terms of market interest rates, not embedded costs, and that the capital structure be measured in terms of the market values of debt and equity, not the book values. Financial practitioners also use market interest rates and market value capital structures to estimate the cost of capital for purposes of entry, investment, and innovation decisions. If the Commission accepts the GSA's incorrect definition of the cost of debt and capital structure, it will send incorrect signals to capital market participants, including potential entrants who will find it less costly to use the ILECs' facilities at artificially low regulated rates than to build their own facilities at market-determined rates. The GSA's definition of the cost of capital would undermine the real economic benefits of competition, which come from facilities-based competition.

7. Proxy Companies. The GSA's proxy group of RHCs fails to satisfy the basic assumption of the DCF Model that companies operate in a stable environment where the companies' business operations and financing and dividend policies remain relatively constant. This stability assumption does not apply to the RHCs. The RHCs operate in an unstable environment where their business operations are being fundamentally transformed by mergers, acquisitions, and strategic investments in new technologies that permit the RHCs to participate in

the converging international market for voice, data, wireless, Internet, and video services. In addition, the RHCs are a poor proxy because of their small sample size, just five companies, and their decision to reduce their dividend payout ratios. The GSA could have avoided the problems of applying the DCF Model to the RHCs by choosing a large group of companies of comparable risk such as the S&P Industrials.

8. Growth. The GSA estimates the growth component of their DCF Model by averaging the five-year Analysts' Consensus Estimate ("ACE") of future earnings per share ("EPS") growth with another growth estimate that they incorrectly characterize as being an analysts' "three-year forecast of earnings per share." [GSA Direct Case at page 9.] In fact, the GSA's three-year growth rate is the RHCs' five-year *historical* growth in EPS. The GSA's use of a five-year historical EPS growth rate is completely inconsistent with the GSA's own statements that the RHCs' five-year historical growth rates have been highly distorted by numerous accounting write-offs and special charges [see GSA Direct Case at page 15]. In addition, the GSA fails to realize that historical growth is necessarily a poor indicator of future growth for companies whose businesses are being fundamentally transformed by competition, deregulation, and rapidly changing technology. The GSA's historical growth rates alone cause the GSA to underestimate the ILECs' cost of equity by 56 basis points.[2]

9. Market Weighting. The GSA estimates the ILECs' cost of equity by calculating an equally-weighted average of their DCF estimates for each of the five RHCs. The GSA's use of an equally-weighted average has a significant effect on their cost of equity estimate because of the considerable disparity in the GSA's DCF results across the RHCs and the disparity in the size of the RHCs. Financial analysts generally use market value weighted average DCF results to

[2] This calculation is based on a simple average, rather than a market-weighted average DCF result, and uses the GSA's stock prices and the ACE long-term growth estimates.

reflect the fact that investors hold more of large companies in their portfolios than small companies. The GSA's use of equal weighting, rather than market value weighting, reduces their cost of equity estimate for the ILECs by an additional 34 basis points. Thus, the GSA's mistaken use of historical growth rates and equal weighting causes the GSA to underestimate the ILECs' cost of equity by at least 90 basis points (34 plus 56).

10. Risk. The GSA continues to hold the outmoded view that access services are offered in a low-risk, near monopoly environment. Nothing could be further from the truth. Access services are among the riskiest of the RHCs' telecommunications services because: (1) a large proportion of the ILECs' access revenues come from a relatively small percentage of their access customers; (2) facilities-based competitive access providers have spent billions of dollars to build facilities which bypass the ILECs' access services; (3) the largest access customers, AT&T and MCI WorldCom, have purchased the largest competitive access providers in order to avoid ILEC access charges; (4) access services have historically been priced above incremental cost in order to recover part of the basic loop costs, and, therefore, the ILECs' competitors, who can structure their rates based on elasticity of demand, can specifically target access services; (5) technological developments are allowing customers to obtain telecommunications service through Internet service providers that are exempt from access charges; and (6) customers are increasingly avoiding access charges through the use of wireless services instead of wireline services.

11. Independent Estimate of the ILECs' Weighted Average Cost of Capital. I estimate the ILECs' overall weighted average cost of capital to be in the range 12.75 percent to 13.15 percent, based on a 6.68 percent market cost of debt, a 14.77 percent cost of equity, and a target market value capital structure containing between 75 percent and 80 percent equity.